

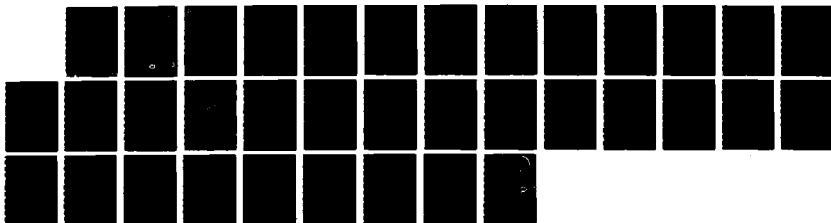
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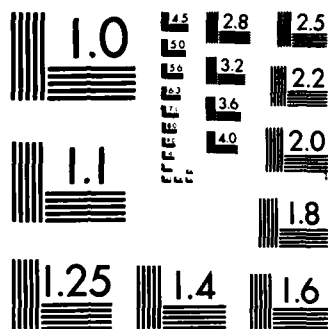
ENVIRONMENTAL ASSESSMENT: RIPRAP PLACEMENT AND TRAIL
CONSTRUCTION ON ISLAND BELOW RED ROCK RESERVOIR HARTON
COUNTY IOWA(U) ARMY ENGINEER DISTRICT ROCK ISLAND IL
APR 87 F/G 13/2

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ENVIRONMENTAL ASSESSMENT

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RIPRAP PLACEMENT AND TRAIL CONSTRUCTION ON ISLAND BELOW RED ROCK RESERVOIR MARION COUNTY, IOWA

APRIL 1987



US Army Corps
of Engineers

Rock Island District

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AUG 24 1987

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REPLY TO
ATTENTION OF:

NCRPD-E

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING - P.O. BOX 2004
ROCK ISLAND, ILLINOIS 61204-2004

ENVIRONMENTAL ASSESSMENT

RIPRAP PLACEMENT
AND
TRAIL CONSTRUCTION
ON ISLAND BELOW RED ROCK RESERVOIR
MARION COUNTY, IOWA

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APRIL 1987

ENVIRONMENTAL ASSESSMENT
RIPRAP PLACEMENT
AND
TRAIL CONSTRUCTION
ON ISLAND BELOW RED ROCK RESERVOIR
MARION COUNTY, IOWA

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2	Riprap Cross Section

ATTACHMENTS

Finding of No Significant Impact (FONSI)

Pertinent Correspondence

Clean Water Act, Section 404(b)(1) Evaluation

DISTRIBUTION LIST

ENVIRONMENTAL ASSESSMENT
RIPRAP PLACEMENT
AND
TRAIL CONSTRUCTION
ON ISLAND BELOW RED ROCK RESERVOIR
MARION COUNTY, IOWA

I. PURPOSE AND NEED FOR ACTION.

This Environmental Assessment (EA) addresses two projects proposed for construction on an island downstream of the Red Rock dam. These include the riprapping of its eastern or main channel shoreline and trail development around its perimeter.

The placement of riprap would provide erosion protection to the island. Since 1969, approximately 1.5 acres have eroded from its main channel side. Protection is needed to prevent the loss of future land.

Currently, the island is zoned for recreation low density use. The development of a trail would enhance this land use by providing access for activities such as nature viewing, hiking, and fishing. → (to p 9)

II. PROJECT DESCRIPTION.

The project site, which is located approximately 1,350 feet downstream of Red Rock dam, is 4 miles southwest of the town of Pella, Iowa, in Marion County. Plate 1 shows the general location, as well as the riprap and trail alignments.

About 1,608 feet of shoreline on the eastern side of the island would be riprapped. The shoreline would be cut and filled and shaped to a 2.5 horizontal to a 1 vertical slope. Six (6) inches of bedding rock and 18 inches of riprap then would be placed on the slope. Plate 2 shows a typical cross section.

The larger, mature trees upon the bank to be riprapped would be avoided and left in place. Construction would not begin until after mid-June to avoid conflicts with the heavy fishing pressure of the area.

The trail would be approximately 4,000 feet long and would both bisect and follow the perimeter of the island. Of this, 2,300 feet would follow the alignment of existing footpaths and access trail used to place riprap in order to lessen disturbances to the area. The trail would be 6 feet wide and have a granular surface and would be routed to avoid dense vegetation.

No large trees would be removed, although it is likely that some sapling-sized trees and shrubs, as well as the herbaceous vegetation, would be cleared. The trail and island would be closed to public use during the winter months to avoid impacts to bald eagles which use the area during this time.

III. ALTERNATIVES.

A. No Federal Action. Under this alternative, no action would take place. Without the riprapping, additional land would be lost to erosion. Without the trail, access would be more restricted and any foot traffic would not be concentrated onto hardened pathways. Because the island is zoned for low density recreation, both access and erosion protection are desired. For these reasons, "no action" is not the preferred alternative.

B. Riprap Emplacement and Trail Construction. This alternative is described previously under "Project Description" and is the preferred alternative.

C. Other Site Locations. While the emplacement of riprap is limited to the site of erosion and cannot be changed, the trail's location and length can vary. Other trail alignments could have been chosen, but would have similar or greater impacts than the preferred alternative without providing better access. Therefore, other site locations were not selected.

IV. AFFECTED ENVIRONMENT.

The project site is an island approximately 13.8 acres in size. The island was created during construction of the Red Rock dam when a straight outflow channel was cut through a meander in the Des Moines River. The island is bordered by the newer channel of the Des Moines River on the eastern side, and by a slough (the old river channel) on its remaining sides. Surrounding the island on both sides of the river are a number of intensively developed recreation areas that are used for camping, picnicking, and fishing. A man-made causeway connects the west side of the island to the main shoreline.

The majority of the island is covered by mature floodplain forest of silver maple (Acer saccharinum), cottonwood (Populus deltoides), willow (Salix sp.), box elder (Acer negundo), and mulberry (Morus sp.). A strip of open, grassy land dissects the island from the causeway to the east side of the island. The strip averages 120 feet in width and is used as a footpath.

TABLE EA-1

Effects of the Recommended Plan on
Natural and Cultural Resources

<u>Types of Resources</u>	<u>Authorities</u>	<u>Evaluation of Effects</u> ^{1/}
Air quality	Clean Air Act, as amended (42 U.S.C. 1857h-7 et seq.)	No significant effect
Areas of particular concern within the coastal zone	Coastal Zone Management Act of 1972, as amended (16 U.S.C 1451 et seq.)	Not present in planning area
Endangered and threatened species critical habitat	Endangered Species Act of 1973, as amended (16 U.S.C 1531 et seq.)	No significant effect
Fish and wildlife habitat	Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.)	No significant effect
Floodplains	Executive Order 11968, Flood Plain Management	No significant effect
Historic and cultural properties	National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.)	No adverse effects anticipated
Prime and unique farmland	CEQ Memorandum of 1 August 1980; Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing the National Environ- mental Policy Act	Not present in planning area
Water quality	Clean Water Act of 1977, as amended (33 U.S.C. 1251 et seq.)	No significant effect
Wetlands	Executive Order 11990, Protection of Wetlands, Clean Water Act of 1977, as amended (42 U.S.C. 1857h-7 et seq.)	Not present in planning area
Wild and scenic rivers	Wild and Scenic Rivers Act, as amended, (16 U.S.C. 1271 et seq.)	Not present in planning area

^{1/} If a type of resource is not present in the planning area, enter "Not present in the planning area." If a type of resource is not affected, enter "No effect."

The eastern shoreline, the area to be riprapped, has a vertical bank 14 feet high. The bank consists of alluvial deposits of sand layered with fine silts. A narrow strip of open land extends along half (800 feet) of the shoreline and consists of a 20- to 30-foot-wide section of grasses, forbs, and barren ground. The remaining half of the eastern shoreline is wooded.

Wildlife species common to the project area include small mammals such as mice, shrews, moles, cottontail rabbit, opossum, raccoon, and skunks. The combination of wooded island and adjacent slough provides a rich habitat for reptiles and amphibians. The mature forest provides good habitat for the northern flicker and woodpecker species, as well as nesting cavities for owls. Other birds that utilize perches along the shoreline include the belted kingfisher and turkey vulture. The bald eagle, a winter resident, also uses shoreline perches. Great blue herons and other wading birds use the slough as feeding stations.

Red Rock dam tends to concentrate migrating fish in this section of the Des Moines River, making it a popular fishing area. Important game species include walleye, northern pike, crappie, white bass, and channel and flathead catfish.

V. ENVIRONMENTAL CONSEQUENCES OF PREFERRED ACTION.

The effects of the preferred plan are summarized in table EA-1.

A. Noise. Minor noise levels would occur as a result of construction and transportation of materials. Users of nearby recreational sites may be temporarily affected. However, no homes, schools, or hospitals are near the project site, and no significant impacts should occur.

B. Displacement of People. No people would be displaced.

C. Aesthetic Values. Much of the shoreline above and below the island is already riprapped. The riprapping of the eastern side of the island would have little effect on aesthetic values. Trail construction would have a positive effect by concentrating foot traffic onto hardened pathways and is compatible with the surrounding recreation areas.

D. Community and Regional Growth. No significant short- or long-term impacts to the growth of the community would be realized as a result of the proposed trail construction and riprap placement. Further, no significant impacts to regional growth would result from the projects.

E. Community Cohesion. The project area is located in a rural surrounding, with limited residential development in the vicinity. Several recreation areas and campgrounds are located within the vicinity of the island, however. Due to the nature of the projects and their limited area of influence, no impacts to community cohesion would be noticed.

F. Property Values and Tax Revenues. The value of the island itself might increase slightly as a result of the proposed projects. This land is federally owned, so an increase in its value would not increase local tax revenues.

G. Public Facilities and Services. The project site is Federal property zoned for low density recreation. The proposed projects would positively impact public facilities by providing shoreline erosion protection at a public recreation site. The proposed trail construction would provide access for such activities as fishing, hiking, and nature viewing on the island. The trail construction would help fulfill a portion of the recreational needs of the general public within Marion County and outlying areas.

H. Employment and Labor Force. Construction of the proposed projects would slightly impact short-term employment in the project area. Based on the small scale of the project, few employees would be required; the surrounding communities have a labor pool of large enough size to absorb project needs with no noticeable impact. The projects would not affect the permanent employment or labor force in Marion County.

I. Business and Industrial Development. Changes in business and industrial activity during the construction of the projects would be minimal. The slight increase in business activity occurring from the projects would be absorbed into the area without noticeable effect.

J. Farm Displacement. No farms or farmlands would be displaced.

K. Man-Made Resources. No man-made resources would be significantly affected.

L. Natural Resources. Riprap construction would result in the loss of existing vegetation caused by the shaping of the slope, the placement of riprap, and access along the shoreline by construction equipment. However, because of active erosion the streambank contains little or no vegetation and the larger trees within the project alignment adjacent the bank would be avoided. Therefore, no significant impacts are anticipated.

Trail construction also would cause the loss of some herbaceous and sapling-sized woody vegetation. The trail would be aligned to follow existing footpaths and disturbed rights-of-way of riprap construction, and no significant impacts are anticipated.

M. Air Quality. Minor, temporary impacts would occur from machinery exhaust and dust created by construction.

N. Water Quality. Minor, temporary increases in turbidity would occur during construction activities. The placement of riprap requires compliance with Section 404 of the Clean Water Act. A Section 404(b)(1) evaluation has been prepared and is attached to this document. Section 401 certification also has been applied for from the State of Iowa and will be obtained prior to construction.

O. Endangered Species. There are two federally listed threatened and endangered species listed for Marion County, Iowa: the bald eagle (Haliaeetus leucocephalus) and the Indiana bat (Myotis sodalis).

The bald eagles use large trees along the shoreline areas of the island during the winter months as resting and feeding perches. Riprapping would require the removal of a number of trees; however, the larger trees would be left. Use of the island and the trail would be restricted to times when the bald eagles are not present. Therefore, no significant impacts to the bald eagle are anticipated at this time.

The Indiana bat uses large trees with loose or peeling bark near small to medium-sized streams with an enclosed canopy during the summer, and it uses caves as winter hibernacula. Since neither habitat exists within the project site, no impacts to the Indiana bat are expected.

P. Cultural Resources. Rock Island District archeologists conducted a cultural resources reconnaissance survey of the proposed bank stabilization area on 2 October 1986. The entire length of the bank is severely eroded, creating a 5-meter-high cut bank with 100 percent visibility. A walkover survey along the bank, combined with trowel and shovel scraping, failed to identify any cultural artifacts, features, or buried soil horizons. The heavily banded stratigraphy observed suggests that this area was very active. Based on these field observations, it was determined that the proposed projects would have no impact on significant historic properties. By a letter dated 30 October 1986, the Iowa State Historic Preservation Officer concurred with this determination.

VI. ENVIRONMENTAL IMPACTS OF NONPREFERRED ALTERNATIVES.

With no Federal action, the temporary and immediate impacts of construction would not occur. However, without the riprapping, erosion of the island would continue. Alternatives to the preferred trail alignment are likely to have similar or greater impacts as the nonpreferred alternatives.

VII. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED.

Exhaust and dust from construction equipment, the loss of vegetation, and temporary increases in turbidity cannot be avoided.

VIII. ANY IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES WHICH WOULD BE INVOLVED IF THE PROPOSED ACTION SHOULD BE IMPLEMENTED.

The purchase of materials and the commitment of man-hours, fuel, and machinery to perform the project are irretrievable.

IX. RELATIONSHIP BETWEEN SHORT-TERM USE OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY.

Riprapping would cause an initial loss of shoreline vegetation but would provide for long-term erosion protection. Trail construction also would cause an initial loss of vegetation within its alignment while providing long-term accessibility around the island. Neither task is anticipated to have a noticeable effect on the area's long-term productivity.

X. RELATIONSHIP OF THE PROPOSED PROJECTS TO LAND-USE PLANS.

The proposed projects are designed to enhance or protect low-density recreational use on land zoned for that purpose.

XI. COMPLIANCE WITH ENVIRONMENTAL QUALITY STATUTES.

A summary of compliance can be found in table EA-2.

A. Endangered Species. Two federally listed endangered species occur within Marion County, Iowa: the bald eagle (Haliaeetus leucocephalus) and the Indiana bat (Myotis sodalis). Coordination with the U.S. Fish and Wildlife Service (FWS) has indicated that there will be no effect to either species.

B. Cultural Resources. A cultural resources survey indicated that no sites are within the proposed project area and no impacts to significant historic properties are anticipated. By letter dated 30 October 1986, the Iowa State Historic Preservation Officer concurred with this determination. The project is therefore cleared for construction.

TABLE EA-2

Relationship of Plans to Environmental Protection
Statutes and Other Environmental Requirements

Federal Policies	Compliance
Archeological and Historic Preservation Act, 16 U.S.C. 469, et seq.	Full Compliance
Clean Air Act, as amended, 42 U.S.C. 1857h-7, et seq.	Full Compliance
Clean Water Act (Federal Water Pollution Control Act), 33 U.S.C. 1251, et seq.	Full Compliance
Coastal Zone Management Act, 16 U.S.C. 1451, et seq.	Not Applicable
Endangered Species Act, 16 U.S.C. 1531, et seq.	Full Compliance
Estuary Protection Act, 16 U.S.C. 1221, et seq.	Not Applicable
Federal Water Project Recreation Act, 16 U.S.C. 460-1(12), et seq.	Full Compliance
Fish and Wildlife Coordination Act, 16 U.S.C. 611, et seq.	Full Compliance
Land and Water Conservation Fund Act, 16 U.S.C. 460/-460/-11, et seq.	Not Applicable
Marine Protection, Research and Sanctuary Act, 33 U.S.C. 1401, et seq.	Not Applicable
National Environmental Policy Act, 42 U.S.C. 4321, et seq.	Full Compliance
National Historic Preservation Act, 16 U.S.C. 470a, et seq.	Full Compliance
Rivers and Harbors Act, 33 U.S.C. 403, et seq.	Full Compliance
Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, et seq.	Not Applicable
Wild and Scenic Rivers Act, 16 U.S.C. 1271, et seq.	Not Applicable
Farmland Protection Policy Act, 7 U.S.C. 4201, et seq.	Full Compliance

NOTES

a. Full Compliance. Having met all requirements of the statute for the current stage of planning (either preauthorization or postauthorization).

b. Partial Compliance. Not having met some of the requirements that normally are met in the current stage of planning. Partial compliance entries should be explained in appropriate places in the report and referenced in the table.

c. Noncompliance. Violation of a requirement of the statute. Noncompliance entries should be explained in appropriate places in the report and referenced in the table.

d. Not Applicable. No requirements for the statute required compliance for the current stage of planning.

C. Federal Water Project Recreation Act. The proposed projects are intended to provide protection and access to recreational lands and are in compliance with this act.

D. Fish and Wildlife Coordination Act. Biologists from the FWS and the Iowa Department of Natural Resources were contacted during the preparation of this EA. Coordination indicated that there would be no significant impacts to fish and wildlife resources. In this regard, a number of recommendations were made, including that riprapping be done after mid-June when the fishing pressure on the area is not so great, and that public use of the island be restricted during the winter season so as not to affect bald eagle use during that time. Both suggestions have been incorporated into the project plans.

E. Executive Order 11998, Flood Plain Management. The project site is on Federal land and would not encourage development in the floodplain, with the exception of possible future low-density recreational facilities. Any such facilities, however, would be designed to meet the floodplain conditions.

F. Wild and Scenic Rivers. No wild or scenic rivers are present within the project area.

G. Executive Order 11990, Protection of Wetlands. No wetlands would be affected by the proposed projects.

H. Clean Water Act. A Section 404(b)(1) evaluation has been prepared for the proposed riprapping (attached), and Section 401 Certification from the State of Iowa has been applied for and will be received prior to any construction.

I. Clean Air Act. Minor, temporary impacts of increased dust and exhaust would occur during construction. No air quality standards should be violated.

J. Farmland Protection Policy Act. No farmlands would be affected.

XII. CONCLUSION.

The proposed projects would riprap 1,600 feet of shoreline and provide for 4,000 feet of trails. There would be an immediate loss of vegetation during construction, but a long-term gain through the prevention of gradual erosion. The trail would concentrate foot traffic onto hardened paths and provide additional recreational opportunities on public land at Lake Red Rock. No significant impacts are anticipated to result from the proposed projects.

FINDING OF NO SIGNIFICANT IMPACT
RIPRAP PLACEMENT
AND
TRAIL CONSTRUCTION
ON ISLAND BELOW RED ROCK RESERVOIR
MARION COUNTY, IOWA

Having reviewed the information provided by this Environmental Assessment, along with data obtained from cooperating Federal, State, and local agencies and from the interested public, I find that the proposed riprapping and trail construction at Red Rock Reservoir will not significantly affect the quality of the environment. Therefore, it is my determination that an Environmental Impact Statement is not required. This determination will be reevaluated if warranted by later developments.

Alternatives considered along with the preferred action include:

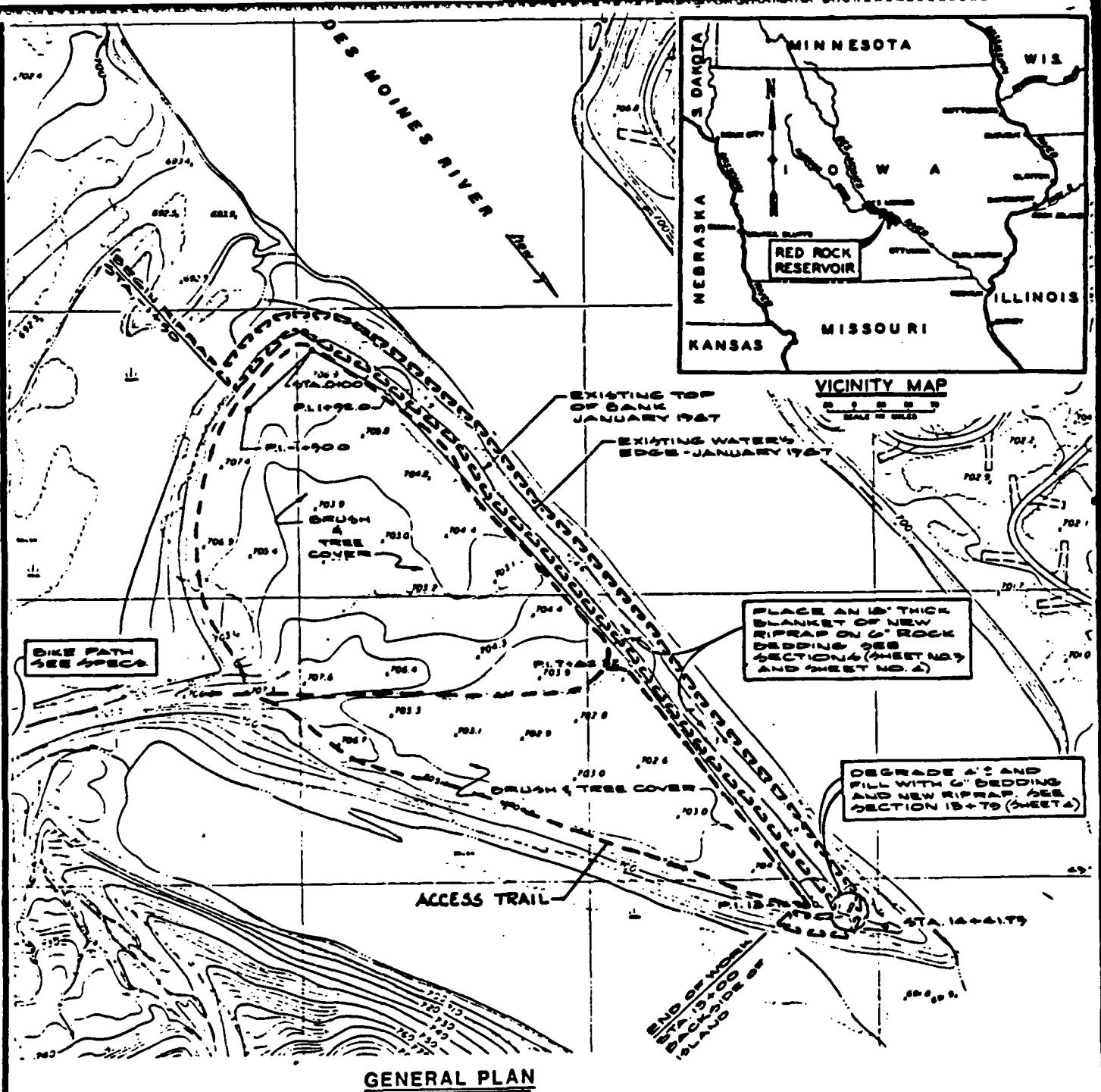
- a. No Federal action.
- b. Other site locations.

Factors considered in making a determination that an Environmental Impact Statement was not required are as follows:

- a. The action will provide erosion protection lands and access to public recreation lands.
- b. Initial loss of vegetation during construction will be offset by the prevention of long-term losses by continued erosion.
- c. Riprapping the shorelines will provide a stable substrate and increased habitat for benthos and other aquatic wildlife.
- d. No significant social, economic, environmental, or cultural impacts are anticipated as a result of these actions.

date

Neil A. Smart
Colonel, Corps of Engineers
District Engineer



LIST OF ADJACENT PROPERTY OWNERS

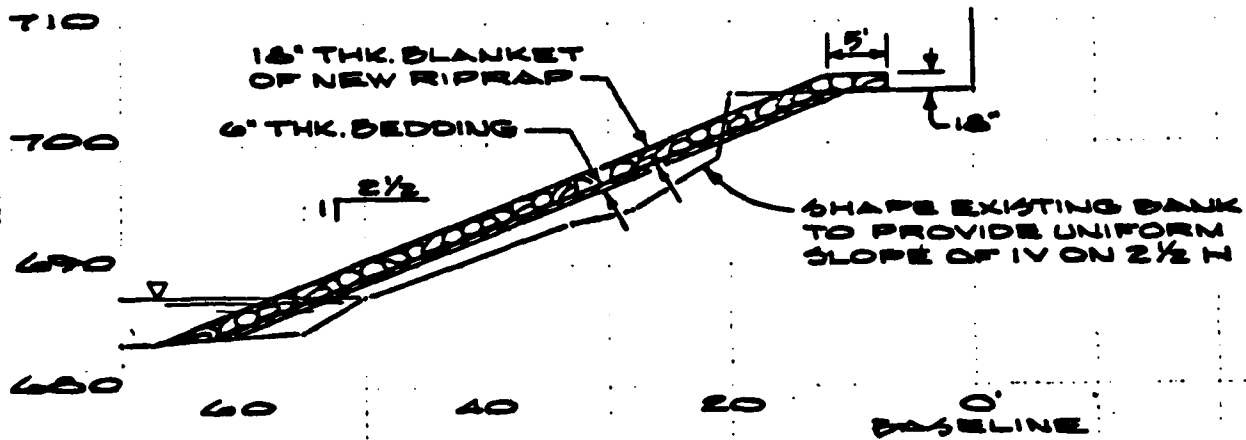
NO.	NAME	ADDRESS
1.	Corps Of Engineers	
2.		
3.		
4.		

PROJECT DESCRIPTION:

Trail and Riprap Alignment

LOCATION:

Lake Red Rock
Tailwater Area



TYPICAL SECTION

PROJECT DESCRIPTION:

Riprap Cross Section

LOCATION:

Lake Red Rock
Tailwater Area

PERTINENT CORRESPONDENCE

TELEPHONE OR VERBAL CONVERSATION RECORD

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

DATE

February 1987

SUBJECT OF CONVERSATION

Recreation Management and Trail Construction at Red Rock

INCOMING CALL

PERSON CALLING

ADDRESS

PHONE NUMBER AND EXTENSION

PERSON CALLED

OFFICE

PHONE NUMBER AND EXTENSION

OUTGOING CALL

PERSON CALLING

OFFICE

PHONE NUMBER AND EXTENSION

PERSON CALLED

ADDRESS

PHONE NUMBER AND EXTENSION

SUMMARY OF CONVERSATION:

I called Chuck Kakas, Wildlife Biologist for the IDNR, to coordinate the above project. I explained that the project included wrapping 1600 feet of shoreline on the island below Red Rock Dam and also constructing a hiking-access trail around the island perimeter.

Chuck Kakas stated he saw no problems with the wrapping but was concerned about development such as the trail affecting bald eagle use of area during winter. He recommended limiting access to the island during winter eagle use.

Ron Klump
AD-E

TELEPHONE OR VERBAL CONVERSATION RECORD

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

DATE

13 March 1957

SUBJECT OF CONVERSATION

Riprap Placement and Hiking Trail Construction at Reel Rock

INCOMING CALL

PERSON CALLING

ADDRESS

PHONE NUMBER AND EXTENSION

PERSON CALLED

OFFICE

PHONE NUMBER AND EXTENSION

OUTGOING CALL

PERSON CALLING

OFFICE

PHONE NUMBER AND EXTENSION

Ron Klump

PD-E

319-785-6361, x-344

PERSON CALLED

ADDRESS

PHONE NUMBER AND EXTENSION

Thomas Putnam

*Fisheries Biologist
Iowa DNR, Boone, Iowa*

515-432-2823

SUMMARY OF CONVERSATION:

I called Tom Putnam, the local Iowa Fisheries Biologist, to coordinate the proposed projects with him. Tom Putnam said he had no objections to the projects but suggested that the riprapping be done sometime after mid-June, when the peak presence of the area is not so great.

*Ron Klump
PD-E*

TELEPHONE OR VERBAL CONVERSATION RECORD

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

DATE

10 March 1987

SUBJECT OF CONVERSATION

Riprap Placement and Hiking Trail Construction at Red Rock

INCOMING CALL

PERSON CALLING

ADDRESS

PHONE NUMBER AND EXTENSION

PERSON CALLED

OFFICE

PHONE NUMBER AND EXTENSION

OUTGOING CALL

PERSON CALLING

OFFICE

PHONE NUMBER AND EXTENSION

Ken Klump

PD-E

319-788-6361, x-344

PERSON CALLED

ADDRESS

PHONE NUMBER AND EXTENSION

Gail Carmody

US Fish and Wildlife Service
Rock Island, Illinois

319-793-5600

SUMMARY OF CONVERSATION:

I called Gail Carmody of the US Fish and Wildlife Service to coordinate the above projects. I explained that 1600 feet of shoreline would be riprapped and that the riprap would be brought in along the existing trail, that runs through the middle of the island. I also explained that a hiking-access trail would also be built along the island's perimeter.

Gail Carmody stated that there would be no effect to federally listed threatened or endangered species and that the project would have no significant effect on fish and wildlife resources. Gail recommended that as large a rock as possible be used for riprapping, and that it be placed down into the water as far as possible to provide good habitat.

Ken Klump
PD-E

TELEPHONE OR VERBAL CONVERSATION RECORD

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

DATE

16 March 1987

SUBJECT OF CONVERSATION

Riprap Placement and Trail Construction at Reel Rock

INCOMING CALL

PERSON CALLING

ADDRESS

PHONE NUMBER AND EXTENSION

PERSON CALLED

OFFICE

PHONE NUMBER AND EXTENSION

OUTGOING CALL

PERSON CALLING

OFFICE

PHONE NUMBER AND EXTENSION

PERSON CALLED

ADDRESS

PHONE NUMBER AND EXTENSION

Ron Klump

FD-E

314 - 788 - 6361

Lynn King

U.S. EPA
Kansas City, Kansas

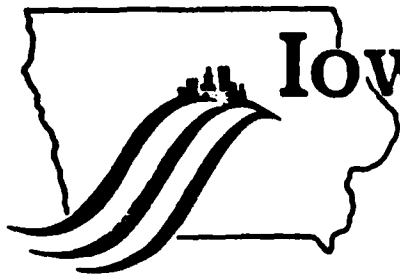
913 - 236 - 2823

SUMMARY OF CONVERSATION:

I called Lynn King of the US EPA to coordinate the proposed projects. I explained that 1600 feet of shoreline would be riprapped and that a trail would be constructed around the perimeter of the island.

Lynn King said he saw no apparent problems with the proposed project and had no objections.

Ron Klump
FD-E



Iowa

State Historical Department

East 12th and Grand Avenue, Des Moines, Iowa 5
(515) 281-5111

OCT 30 1986

Dudley M. Hanson, P.E.
Chief, Planning Division
Rock Island District Corps of Engineers
Clock Tower Building
P.O. Box 2004
Rock Island, IL 61204-2004

RE: PLACEMENT OF RIPRAP ALONG EAST BANK OF ISLAND
IMMEDIATELY DOWNSTREAM OF RED ROCK LAKE DAM -
MARION COUNTY

Dear Mr. Hanson:

Based on the information you provided, we find the proposed project to have no effect upon known historic or other cultural resources. Therefore, we recommend project approval.

However, if the proposed project work uncovers an item or items which might be of archeological, historic or architectural interest, or if important new archeological, historic or architectural data come to light in the project area, the work should be delayed for sufficient time to notify this office in order that the significance of the discovery can be determined.

Should you have any questions or if we can be of further assistance to you, please contact Dr. Kay Simpson, Archeological Surveys, at 515-281-8744.

Sincerely,

Dr. Carol L. Ulch
Deputy State Historic Preservation Officer

/mdd

CLEAN WATER ACT

SECTION 404(b)(1) EVALUATION

CLEAN WATER ACT
SECTION 404(b)(1) EVALUATION

RIPRAP PLACEMENT
ON ISLAND BELOW RED ROCK RESERVOIR
MARION COUNTY, IOWA

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CLEAN WATER ACT
SECTION 404(b)(1) EVALUATION

RIPRAP PLACEMENT
ON ISLAND BELOW RED ROCK RESERVOIR
MARION COUNTY, IOWA

SECTION 1 - PROJECT DESCRIPTION

LOCATION

The project site is located on the eastern shoreline of an island along the Des Moines River, 1,350 feet downstream of Red Rock dam. It is approximately 4 miles southwest of the town of Pella in Marion County, Iowa.

GENERAL DESCRIPTION

Approximately 1,608 feet of shoreline would be riprapped. This would involve shaping the shoreline to a 2.5 horizontal to 1 vertical slope and placing 6 inches of bedding rock and 18 inches of riprap. Large trees within the project site would be avoided and left in place.

PURPOSE AND AUTHORITY

The purpose of this action is to provide erosion protection to the eastern shoreline of the island downstream of Red Rock dam. The island is part of the land administered by the Corps under the Red Rock project. The project was authorized by the Flood Control Act of 1938 and is operated and maintained under this original authorization.

GENERAL DESCRIPTION OF DREDGED AND FILL MATERIALS

The bedding material would consist of crushed stone with a maximum size of about 1.5 inches. The riprap is larger stone and would consist of boulder or quarried rock of varying size. Approximately 2,500 tons of bedding rock and 7,500 tons of riprap would be used.

DESCRIPTION OF THE PROPOSED DISCHARGE SITES

Because of active erosion, the riverbank contains little or no vegetation. Landward of the bank, the site contains a combination of mature bottomland forest and open areas of various grasses and forbs and barren ground.

DESCRIPTION OF DISPOSAL METHOD

Bedding rock and riprap would be hauled in by truck and placed on site. A backhoe, bulldozer, or similar equipment would be used to shape the slope and adjust the materials to the correct dimensions.

SECTION 2 - FACTUAL DETERMINATIONS

PHYSICAL SUBSTRATE DETERMINATIONS

The substrate of the Des Moines River at the project site is generally composed of sand. The riverbank contains varying layers of modern river alluvium of mixed sand and silt layers.

WATER CIRCULATION, FLUCTUATION, AND SALINITY DETERMINATIONS

WATER

The Des Moines River is a fresh water stream. The river within the project area consists of a straight outflow channel from Red Rock dam to the downstream tip of the island. Below that, the river resumes its natural alignment. This downstream corridor below the dam is used heavily for fishing and other recreation.

CURRENT PATTERNS AND CIRCULATION

The proposed riprapping would be limited to the shoreline area and would have no noticeable effect on current flow patterns and circulation.

NORMAL WATER LEVEL FLUCTUATIONS

Water level fluctuations are influenced by Red Rock Reservoir which both stores and releases water in conjunction with its flood control purpose. The proposed project would cause no noticeable changes in water level fluctuations.

ACTIONS TAKEN TO MINIMIZE IMPACTS

Construction would take place during periods of low water to avoid excess turbidity. Larger trees along the shoreline would be avoided and left in place. The amount of riprap would be kept to the minimum amount necessary for erosion protection.

CONTAMINANT DETERMINATIONS

Bedding rock and riprap would be chemically stable and noncontaminating. The shaping of the banks would take place in a non-industrial, non-commercial area where the soil is unlikely to be contaminated.

AQUATIC ECOSYSTEM AND ORGANISM DETERMINATIONS

The proposed action should have no noticeable effect on the aquatic ecosystem. Active erosion creates an unstable substrate, limiting its suitability to benthos and other organisms. The placement of riprap, however, would provide crevices and stable substrates for invertebrates, as well as spawning habitat and shelter for fish. No significant impacts to benthos, plankton, or nekton are anticipated.

No wetlands, mudflats, vegetated shallows, or unique and sensitive areas would be affected.

Two federally endangered species are listed for Marion County, Iowa: the bald eagle (Haliaeetus leucocephalus) and the Indiana bat (Myotis sodalis). Threatened and endangered species are discussed in Section V of the preceding Environmental Assessment. It was determined that there would be no significant impacts to either species.

No State-listed threatened or endangered species are known to occur within the project area, and no impacts are anticipated.

PROPOSED DISPOSAL SITE DETERMINATIONS

The proposed project may cause minor, temporary increases in turbidity during construction; however, no violations to water quality standards should occur.

Certification under Section 401 of the Clean Water Act has been applied for, and all requirements will be met prior to construction.

DETERMINATION OF CUMULATIVE AND SECONDARY EFFECTS ON THE AQUATIC ECOSYSTEM

Impacts from construction would be temporary. The riprap which would be permanent would be composed of chemically stable, noncontaminating material. Therefore, no detrimental cumulative or secondary impacts are expected to occur.

SECTION 3 - FINDINGS OF COMPLIANCE OR
NONCOMPLIANCE WITH THE RESTRICTIONS ON DISCHARGE

1. No significant adaptations to the guidelines were made relating to this evaluation.
2. The alternative of no Federal action was not feasible because it did not provide erosion control protection to the island.
3. Certification under Section 401 of the Clean Water Act has been applied for from the Iowa Department of Natural Resources. Certification will be obtained before construction begins.
4. The project would not introduce toxic substances into nearby waters or result in appreciable increases in existing levels of toxic materials.
5. No significant impacts to Federal or State-listed endangered or threatened species will result from this project.
6. The erosion control projects are in inland fresh water systems. No marine sanctuaries are involved.
7. No municipal or private water supplies would be affected. Minor impacts would result from the construction sites, but an increase in habitat diversity would occur with the use of riprap. No sensitive or critical habitats would be affected, and no long-term impacts would occur.
8. Project construction materials will be physically and chemically stable.
9. The proposed actions will not significantly affect water quality or the aquatic ecosystem and are in compliance with the requirements of guidelines for Section 404(b)(1) of the Clean Water Act, as amended.

Date

Neil A. Smart
Colonel, Corps of Engineers
District Engineer

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RIPRAP PLACEMENT AND TRAIL CONSTRUCTION
ON ISLAND BELOW RED ROCK RESERVOIR
MARION COUNTY, IOWA

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